REMARKS

This is in full and timely response to the Final Office Action dated October 7, 2005. Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendment: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issues requiring further search and/or consideration; (c) satisfies a requirement of form asserted in the previous Office Action; and (d) places the application in better form for appeal, should an appeal be necessary. Entry of this amendment is respectfully requested. Reexamination and reconsideration in light of the above amendments and the following remarks are respectfully requested.

Claim Rejections- 35 U.S.C. § 102

In the Action, claims 7-10 and 12 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Takayama '549 et al. (US Patent No. 5,948,549). This rejection is respectfully traversed.

Independent claim 7 of the present application recites a copper based sintered contact material, wherein, *inter alia*, the total amount of **intermetallic compounds** is 0.1 to 10% by volume.

In contrast, Takayama '549 fails to disclose, teach or suggest the total amount of **intermetallics compounds** being equal to 0.1 to 10% by volume, as is recited in claim 7 of the present application. In fact, in the Office Action it is conceded that "Takayama '549 is silent as to the volume % of intermetallics in the contact", thereby rendering the § 102 rejection of claim 7 ineffective.

The Office Actions suggests that intermetallic compounds such as are likely present in Takayama '549 due to the presence in the starting mixture of individual elements capable of forming intermetallics. However, as conceded in the Office Action, it is not certain that the recited elements of Takayama '549 would form into intermetallics, and the disclosure provides no evidence that the elements would form into intermetallics. In fact, Takayama '549 does not even suggest that intermetallics are formed during the sintering process, but rather indicates that intermetallic compounds, such as NiAl or FeAl may be added to the mixture, with a maximum total amount of 3.0 wt% intermetallic compounds being added in any of the examples (col. 10, lines 5-22 and Table 3).

The present application further supports the desirability of adding intermetallics for the purpose of improving the sliding properties of the sintered contact material. For instance, the present specification (page 30, lines 16-21) states that the addition of Cr, Mo, and W in a large amount leads to a **marked improvement in high-speed sliding properties.**

Accordingly, because Takayama '549 fails to disclose, teach or suggest each and every limitation of claim 7, a *prima facie* anticipation rejection has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference").

Moreover, aside from the novel limitations recited therein, claims 8-10 and 12, being dependent either directly or indirectly upon allowable base claim 7, are also allowable at least by virtue of their dependency upon allowable claim 7. Withdrawal of the rejection of these claims is therefore courteously solicited.

Claim Rejections- 35 U.S.C. § 103

In the Office Action, claims 13-19 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Takayama '549 (U.S. Patent No. 5,948,549). Additionally, claim 11 was rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Takayama '549 in view of Takayama '775 (U.S. Patent No. 6,015,775). These rejections are respectfully traversed.

Claims 13 and 19 recite, *inter alia*, a copper based sintered contact material containing **12 to 16 wt% Sn and a Cu-Sn compound phase** which is dispersedly precipitated in the structure thereof.

As noted in the Office Action, Takayama '549 does not disclose or suggest a contact material containing 12 to 16 wt% Sn and a Cu-Sn compound phase; Takayama '549 merely discloses Sn in a maximum quantity of 10 wt%. Further, the claimed range of 12 to 16 wt% Sn yields a significant increase in bondability of the copper based sintered contact material relative to the iron based material, while also causing precipitation of Cu-Sn **δ phase intermetallic** compounds in the grain boundaries upon cooling (Page 14, lines 14-26). The precipitated Cu-Sn intermetallics restrain extendibility of the sintered contact and significantly alleviate agglutination. As indicated in the disclosure (Page 14, line 26 through page 15, line 7) the precipitation of the Cu-Sn intermetallic compounds in the grain boundaries leads to

characteristics particularly important for contacts used in applications such as cylinder blocks for hydraulic pumps and motors (where the sliding contact occurs in a centrifugal whirling manner). The characteristics are unexpectedly obtained with the higher range of Sn (12-16 wt%), which is not even indicated as being desirable in Takayama '549. In fact Takayama '549 teaches only that a β phase intermetallic is obtained when using Sn in the range disclosed (not more than 10 wt%). **Thus the range of 12-16 wt% Sn as claimed yields a distinct composition with unexpected characteristics**, as shown by the resulting δ phase intermetallic compound which is precipitated in the grain boundaries.

Accordingly, because Takayama '549 fails to disclose, teach or suggest each and every limitation of claims 13 and 19, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *accord.* MPEP 2143.03.

Moreover, aside from the novel limitations recited therein, claims 14-18, being dependent either directly or indirectly upon allowable base claim 7, are also allowable at least by virtue of their dependency upon allowable claim 7. Withdrawal of the rejection of these claims is therefore courteously solicited.

CONCLUSION

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. KOM-0153/INO/DIV3, from which the undersigned is authorized to draw.

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Respectfully submitted,

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